

NAME: _____

Student Worksheet



Activity One

Totally Rad in the '80s!

The '80s were years of great change in North America. New technology was everywhere! Space was being explored and the beginning of computers were taking off. There were lots of trends too. Bright colors, big hair and advertising ruled the day. People were watching the *Challenger* mission and humans were keen on space travel.

You will research some big inventions of the '80s. What was the most important creation of the '80s? Was it video games? The first computer? Perhaps a medical advancement? Decide what invention made the biggest impact on our lives today.

There are many ways you can show your learning. Some ways to present your research could include:

- A brochure.
- A video commercial.
- A photo collage with labels.
- A written report.
- A digital slideshow.

As you learn about your radical '80's invention, be sure you know:

- What the invention is.
- Who invented it.
- What problem did it solve?
- How did it help people?
- Why was it successful?

If you would like to go into the topic deeper, think about what it's like today. What has replaced this invention? Is it still the same as it was decades ago? Add your findings to the project. Learn about the '80's, it's totally cool!

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Activity Two

A Bird's View

Bird loves to create diagrams. She draws detailed pictures and instructions. One of her talents is figuring out how things work. In her brain, she is able to think about how each piece of an item is part of a system. Can you do this easily? Do you like to know why things work a certain way?

You will recreate a diagram, just like Bird. Choose any item that you like. You may want to focus on everyday objects or things you know a lot about. Do you love cards? Think about how an engine operates. Maybe you will do a detailed sketch of your favorite toy.

Your drawing should include:

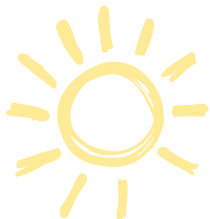
- Labels of each part.
- Straight lines created with a ruler.
- Shading.
- Insets that show a zoomed in view.

There are fascinating machines and gizmos all around us! The simple things that we use every day can hold a lot of surprises! Get to know your world better by taking a Bird's view!



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Activity Three

Design Your Own Mission Team

Imagine you are going to Mars. It will be an incredible space journey! When you arrive, you will have to live on Mars for two months. You will be on a team of six people. Your team will have to survive without any help from Earth. You must decide how you will handle your food, research, and maintain the space station and shuttle. Who would be best to help you?

You can decide who will go to Mars with you. They can be either celebrities, people you know, or people you love the most! Think about what each person is good at. They can be from present day or in the past. How will they help you? What skills do they bring? Consider what job they will do. Once you have your team, what will be your role?

Create a snapshot of your crew. Each team member entry should include a photo and badge. It should have their name and position on it. Each badge will have a brief description of what their job is. How will your team survive on Mars? Go above and beyond and draw a picture of your space station. Get ready to make your home on Mars!



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Activity Four

The Challenge of the *Challenger*

The *Challenger* was an actual space shuttle that ended in disaster. Millions of people watched it take place on television. It was supposed to be a historic mission that ended in tragedy.

You will research the events of the *Challenger*. Focus on facts and not entirely on personal recounts or experiences. Be sure your research sources are verified. You need to find out:

- When the launch took place.
- Where the launch was.
- Who was onboard?
- What was the mission?
- Why did it go wrong?

The *Challenger* shuttle was an engineering disaster. There are proven reasons why the mission failed. When researching, it makes good sense to cross check with other sources. This means you should be sure that more than one source says the same thing. You can use the Internet or books to find information. Looking for other ways to show what you know? Consider writing a poem, a song, or a brochure! You can also provide a written report. Take time to dive into history!



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Activity Five

All Aboard!



Space, the final frontier! Do you dare to explore it? Now you can, with your own board game! You will design a board game based on space exploration. What will the goal of your game be? Will you land on the Moon? Perhaps you will launch a shuttle like the *Challenger*!

Your game should meet these criteria:

- At least 2 players.
- Include game pieces and a game board.
- A way to move around the board.
- A clear objective.
- One winner at the end.

Consider doing some research and include facts about space. What planet is the largest? What dangers might a space ship come across? You can also add fictional parts to your game. Will your players meet aliens? Maybe players will have to choose their path.

You will play and teach your game to your classmates. Remember to be a good sport and play fairly. You never know, your game may be played in every living room in the country one day!



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Activity Six

What's in Your Backpack?



Imagine you go to school with one of the Thomas children. Cash, Fitch and Bird are all very different. They have different interests and hobbies. If you saw their backpack in the hall, what would it look like? What kind of pins and stickers might be on it? Would Bird proudly have a NASA patch? Maybe Cash has an extra water bottle hanging out of his.

You will design a backpack—inside and out—that would be best suited for one of the Thomas kids. Draw what the outside will look like. You can add colors, patterns, pins and patches. Match each of your choices with information you have gathered from the novel. What things make each one of them unique?

Inside the bag, you will draw and label what they will carry to school. Fitch might have an extra stash of arcade quarters hiding in the bottom of his bag. Bird might be carrying an extra pen so she can take notes in class. Be sure to label each item you add. Just like Bird's diagrams, you need to be precise.

Compare your backpack to others in your class. How do they view each character? Did they choose different items? What is important to Bird, Fitch, and Cash? If you met them in the hall, what would you see?

